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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,121	02/18/2004	Floyd Backes	160-031	1979
34845	7590	10/18/2006	EXAMINER	
McGUINNESS & MANARAS LLP 125 NAGOG PARK ACTON, MA 01720			PHILPOTT, JUSTIN M	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 10/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/781,121	BACKES ET AL.	
	Examiner	Art Unit	
	Justin M. Philpott	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 6-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed July 24, 2006 have been fully considered but they are not persuasive.
2. Applicant argues (pages 6-8) that the claimed limitation of "ascertaining logic utilizing ... technology type employed by the alternative access point" is distinct from the utilization of technology types by English because applicant's specification describes an access point considers "available data rate", wherein available data rate is determined based upon "received signal strength and the technology being used", and then indicates technology being used includes "802.11 mode of operation (a,b,g)". Applicant is presumably implying that by connecting each of these statements from the specification and then reading them into the claim language of "ascertaining logic utilizing ... technology type employed by the alternative access point" they indicate a difference from the teachings of English directed towards technology types. In response to this argument, however, although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Accordingly, while applicant may choose to clarify applicant's invention by amending the claims to include limitations that more particularly describe how "technology type" affects the claimed "ascertaining" step, applicant's present argument is not persuasive because English teaches the broadly recited claim limitation of "ascertaining logic utilizing ... technology type employed by the alternative access point" as discussed in the previous office action and repeated herein (e.g., see English at paragraph 0145

regarding "the present invention can be used with any type of ultra wideband technology, but is especially suited for use with time-modulated ultra wideband technology", see also paragraphs 0149-0159 regarding "conventional radio technology").

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. US 2003/0036374 by English et al. in view of U.S. Patent No. 6,144,855 to Slovin.

Regarding claim 1, English teaches a program product for use by a wireless device (e.g., mobile node 902a, see FIGS. 9 and 10) in a wireless communications environment, the program product comprising a computer readable medium having embodied therein a computer program for storing data (e.g., see paragraph 0168 regarding position calculation, inherently comprising such a program), the computer program comprising: logic for associating the wireless device with a current access point on a first channel (e.g., see paragraph 0170, particularly lines 9-17 regarding mobile node 902a associating with one of access points 904a or 904b, inherently comprising one or more respective channels within respective radio coverage areas 1012 and 1014; see also paragraphs 0076, 0100, 0141 and 0163 regarding channels); logic for ascertaining by the wireless device whether the wireless device should attempt to associate with an alternative

access point operating on a second channel (e.g., see paragraph 0170, particularly lines 9-17 regarding mobile node 902a makes the decision of which access point 904a or 904b to associate with), the ascertaining logic utilizing, at least in-part, technology type (e.g., see paragraph 0145 regarding “the present invention can be used with any type of ultra wideband technology, but is especially suited for use with time-modulated ultra wideband technology”, see also paragraphs 0149-0159 regarding “conventional radio technology”) employed by the alternative access point (e.g., see paragraphs 0164-0167 regarding the present invention using a technology type that has the advantage of “notify[ing] the mobile node 902a when it is located near or within overlapped area 1004 of radio coverage areas 1010 and 1012 managed by access points 904a and 904b” which is selected for providing continuous network connectivity instead of selecting traditional roaming/conventional technology type); and logic for requesting association with the alternative access point if it is ascertained that the wireless device should attempt to associate with the alternative access point (e.g., see paragraph 0180 regarding the handoff of communications to a new access point; see also generally paragraphs 0146-0181).

However, English may not specifically disclose the ascertaining is based at least in-part on signal strengths of transmissions from the current and alternative access points.

Slovin, like English, also teaches an apparatus for use by a wireless device for associating with access points (e.g., see col. 1, line 35 – col. 4, line 35), and specifically discloses the well known teaching for ascertaining by a wireless device to be based at least in-part on signal strengths of transmissions from an alternative access point (e.g., see col. 9, lines 6-24 regarding selecting the best access point according to the RSSI, and see col. 1, lines 62-63 clearly identifying the term of art RSSI as “radio signal strength intensity”). Additionally, the teachings

of Slovin provide an equalized ratio of available channels and demanded channels over a plurality of stations and a plurality of access points, for overall improved operation (e.g., see col. 1, lines 35-58 as well as col. 1, line 59 – col. 4, line 35). Thus, at the time of the invention, not only was it well known in the art for ascertaining to be based at least in-part on signal strengths of transmissions from a current and an alternative access point (e.g., see col. 9, lines 6-24 regarding selecting the best access point according to the RSSI), it would further have been obvious to one of ordinary skill in the art to associate access points as taught by Slovin in order to provide an equalized ratio of available channels and demanded channels over a plurality of a stations and a plurality of access points, for overall improved operation (e.g., see col. 1, lines 35-58 as well as col. 1, line 59 – col. 4, line 35).

5. Claims 2-5 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over English in view of Slovin, further in view of U.S Patent No. 6,850,499 to Wheatley, III et al.

Regarding claim 2, English in view of Slovin teach the program product discussed above regarding claim 1, and further, English teaches logic for automatically collecting, by the wireless device, information about access points operating on other channels (e.g., see paragraph 0178 regarding mobile node 902 being informed about information regarding access points 904a, 904b and 904c; and also paragraphs 0076, 0100, 0141 and 0163 regarding channels). However, English in view of Slovin may not specifically disclose indications of transmit power backup.

Wheatley, like English and Slovin, also teaches an apparatus for use by a wireless device for associating with access points (e.g., see abstract). Further, Wheatley teaches a wireless device (e.g., Access Terminal, see col. 11, line 50 – col. 14, line 28) collects indications of

transmit power backoff (e.g., data, including signal-to-noise-and-interference ratio C/I) of access points operating on other channels (e.g., see col. 5, lines 26-29 regarding “each Access Terminal communicates with one or more Access Points and monitors the control channels for the duration of the communication with the Access Points. The control channels can be used by the Access Points to transmit small amounts of data ... to all Access Terminals”; as well as col. 11, lines 55-58 regarding “Access Terminal reports to the Access Point the excess C/I estimate for the selected rate. Access Point then reduces its transmit power by an appropriate amount”; and col. 13, lines 30-34 regarding “Access Terminals measure a variable C/I [in communications from the Access Points]” and generally col. 13, line 12 – col. 14, line 28 regarding “TV. Access Point initiated Power Control”). Additionally, the teachings of Wheatley provide increased efficiency and throughput, and decreased losses due to lower transmit power requirements (e.g., see col. 2, line 14 – col. 3, line 34). Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to apply the teachings of Wheatley to the that of English in view of Slovin in order to provide increased efficiency and throughput, and decreased losses due to lower transmit power requirements (e.g., see Wheatley at col. 2, line 14 – col. 3, line 34).

Regarding claim 3, English teaches the logic for ascertaining ascertains that the wireless device should attempt to associate with the alternative access point operating on the second channel if the alternative access point on the second channel is closer than the current access point (e.g., see paragraphs 0170-0180 regarding mobile node 902 determining which access point to associate with based upon proximity to the access points). Additionally, Wheatley teaches obtaining an indication of expected data rate of service by an alternative access point (e.g., C/I value, wherein “C/I determines the information rate that can be supported for the

forward link from the Access Point to a user's Access Terminal", see col. 1, lines 51-55) and associating with the alternative access point if its expected data rate is greater than the rate of the current access point (e.g., see col. 4, lines 49-53, and also col. 5, lines 18-22 regarding "serv[ing] each remote user from the best serving Access Point and at the highest data rate"). Also, as discussed above, the teachings of Wheatley provide increased efficiency and throughput, and decreased losses due to lower transmit power requirements (e.g., see col. 2, line 14 – col. 3, line 34). Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to apply the teachings of Wheatley to the that of English in view of Slovin in order to provide increased efficiency and throughput, and decreased losses due to lower transmit power requirements (e.g., see Wheatley at col. 2, line 14 – col. 3, line 34).

Regarding claim 4, English teaches the ascertaining is by calculating a first biased distance between the wireless device (e.g., mobile node 902) and the current access point based on "x" samples (e.g., see paragraphs 0167-0168 and 0175 regarding the impulse radio unit 1016 within mobile node 902 triangulating the current position of the mobile node 902, inherently comprising three or more samples); calculating a second biased distance between the wireless device and the alternative access point operating on the second channel based on "y" samples (e.g., see paragraphs 0175-0180 regarding mobile node 902 estimating such a distance by comparing the current position of the mobile node 902 with a map generated in step 1104 of FIG. 11 which comprises the position of a different access point such as 904b or 904c) where "y" (e.g., known position of mobile node 902 and known position of access point 904b) is less than "x" (e.g., three of more samples for triangulating the current position of mobile node 902); and ascertaining that the alternative access point operating on the second channel is closer than the



current access point if the second biased distance is less than the first biased distance (e.g., see paragraphs 0164-0181, particularly paragraphs 0170 and 0175-0180 regarding mobile node 902 determining which access point to associate with).

Regarding claim 5, English teaches sending a bid message to the alternative access point operating on the second channel prior to disassociating from the current access point (e.g., see paragraph 0171 regarding mobile node 902a deciding to associate with a different access point and handing off communications to the different access point after authenticating with the different access point).

Regarding claim 11, English teaches ascertaining logic also employs maximum potential signal strength of the alternative access point (e.g., see paragraph 0122 and FIG. 5I regarding signal strength having a maximum value; see also paragraphs 0170-0171 regarding identifying when the signal power is not at “standard levels” and preventing association with the access point until standard power levels are achieved, at a particular distance, thereby employing maximum potential signal strength of the alternative access point). Further, Wheatley teaches the alternative access point is operating at a purposefully attenuated transmission signal (e.g., see col. 11, line 50 – col. 14, line 28; and specifically, see col. 11, line 65 – col. 12, line 4 regarding “the excess C/I [signal-to-noise-and-interference ratio,] measurement is used to reduce the transmit power on the traffic channel commensurate with the excess C/I measurement”). Also, as discussed above, the teachings of Wheatley provide increased efficiency and throughput, and decreased losses due to lower transmit power requirements (e.g., see col. 2, line 14 – col. 3, line 34). Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to apply the teachings of Wheatley to the that of English in view of Slovin in order to provide

increased efficiency and throughput, and decreased losses due to lower transmit power requirements (e.g., see Wheatley at col. 2, line 14 – col. 3, line 34).

*Conclusion*


6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin M. Philpott whose telephone number is 571.272.3162. The examiner can normally be reached on M-F, 9:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571.272.3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Justin M. Philpott

  
CHI PHAM  
SUPERVISORY PATENT EXAMINER 10/16/04